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PROJECT NO. 51830

**REVIEW OF CERTAIN RETAIL
PUBLIC UTILITY COMMISSION
ELECTRIC CUSTOMER
PROTECTION RULES**

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**PUBLIC UTILITY COMMISSION
OF TEXAS**

REVISED COMMENTS OF ROBERT L. BORLICK

COMES NOW Robert L. Borlick, Senior Energy Advisor with Borlick Energy Consultancy, who submits **revised** comments in response to the Commission's request dated June 25, 2021, re: ***Review of Certain Public Utility Commission Electric Customer Protection Rules***. These revised comments are a substitute for those submitted on August 27, 2021.

ABOUT THE AUTHOR

Robert L. Borlick is an energy consultant with more than 40 years of experience related to the electric power industry. He previously held partner-level positions in two international consulting firms: Putnam, Hayes & Bartlett, Inc, and Hagler, Bailly, Inc. He also served as a Senior Advisor with the Brattle Group. From 2005 through 2013 he assisted the Midwest Independent System Operator in developing its energy-only market and its demand response programs, including the preparation of MISO's filings in the FERC dockets that gave rise to Orders 719 and 745. From 1989 through 1998 he assisted the governments of Great Britain, Singapore, India, Australia, New Zealand, and Canada, with the development of their competitive electricity markets.

EXECUTIVE SUMMARY

- Residential and small commercial customer demand response represents a large, untapped resource for increasing the reliability of the ERCOT electric power system. In addition, it provides these customers with the means to control their electric bills and also suppressing the market power of the large electric generators.
- A plain language interpretation of House Bill 16, limits the development of demand response products that small customers can provide within the ERCOT footprint. Unfortunately, the Commission has no authority to override the language in this law.
- House Bill 16 does not totally preclude development of small customer demand response but

the alternative solution is less desirable as it relies on the application of individual customer consumption baselines, as I described in my comments filed in Project 52373.

- Nonetheless, the Commission should facilitate small customer demand response by initiating a rulemaking proceeding that explores ERCOT purchasing economic demand response from Aggregators of residential and small commercial customers' flexible loads.
- The Commission has the authority to implement rules that improve the economic efficiency of the ERCOT market. Removing barriers to demand response development falls within its purview.

INTRODUCTION

In the wake of Winter Storm Uri, Texas State representative, Jared Patterson, tweeted:

“...wouldn’t a true free market allow homeowners to provide power to the grid...? What if homeowners were getting thousands of dollars in revenue instead of just a bill?”

In 2011 ERCOT experienced a rolling blackout. At that time it was observed that residential and small commercial customers contributed approximately 70 percent of the ERCOT summer peak demand.¹ This statistic is still roughly valid today; small customers account for about 50 GW of ERCOT's summer peak load.

Based on experiences in other regions of the US, aggressive marketing can achieve 20 percent small customer participation in price responsive demand (PRD) programs. Exposing these customers to ten-fold price increases typically produces demand reductions of about 25 to 40 percent, depending on whether enabling technologies are used to automate customers' responses.² However, when ERCOT declares an Energy Emergency Alert (EEA) the market price escalates to \$9,000 per MWh, which represents about **a hundred-fold** price increase! While there is scant data describing how small customers respond to such high prices, it is not unreasonable to expect the aggregate demand reduction to reach at least 50 percent.³ This implies that small customer PRD can produce at least 5 GW of load

¹ The Brattle Group, “ERCOT Investment Incentives and Resource Adequacy,” Report prepared for ERCOT, June 1, 2012, p. 92.

² Ahmad Faruqui and Stephen George, "Quantifying Customer Response to Dynamic Pricing," *The Electricity Journal* 18(4), May 2005, pp., 53-63.

Faruqui, Ahmad, Sanem Sergici, and Cody Warner. . “Arcturus 2.0: A meta-analysis of time-varying rates for electricity.” *The Electricity Journal* 30(10), December 2017, pp. 64-72.

³ Analyzing the smart meter data of former Griddy customers' responses the \$9 per kWh price they faced during Winter Storm URI could provide valuable insights into how small customers respond to huge electricity price increases. However, they would not be representative of customer behavior in the summer season.

reduction – equivalent to the capacity of the two nuclear plants within ERCOT!

Small customer PRD would increase the reliability of the ERCOT power system by slowing the depletion of operating reserves during supply shortages. In effect, the PRD load reductions would provide the equivalent of additional operating reserve. This activity would also reduce wholesale market price volatility, which would provide unhedged supply capacity with more stable energy sales revenues, thereby facilitating long-term contracting and the entry of new supply resources.

Lastly, small customer PRD would force large generators to increase the capacity they must withhold from the market in order to achieve a desired market price increase while concomitantly increasing their lost opportunity cost from not operating the withheld capacity.

HB 16 PROHIBITS EXPOSURE TO WHOLESALE INDEXED PRODUCTS

The straightforward way to implement demand response is to expose some, or all, retail customers' loads to prices indexed to the day-ahead or real-time wholesale market prices. In fact, this is what the now defunct Griddy product did. The fatal flaw in Griddy's product is that it required customers to *expose their total loads* to the volatile wholesale market prices.⁴

During Winter Storm URI ERCOT market prices remained at the VOLL-based cap for several days, producing draconian electric bills for many Griddy customers, resulting in their defaulting on bill payments.⁵ Texas legislators reacted in knee-jerk fashion by enacting House Bill 16 (HB 16), which prohibits the sale of Griddy-type products to residential and small commercial customers. While legislative action was appropriate, a more appropriate response would have been to allow REPs to only offer small customers hedged products that limit the fraction of their loads exposed to the indexed prices, perhaps based on each customer's income level (as a proxy for the ability to pay). It is important to understand that the HB 16 prohibition denies small customers the right to manage their financial risk and to limit their ability to reduce their electricity bills.

⁴ It has been rumored that Griddy was developing a hedged product that would have limited the share of the customer's load that would be exposed to the indexed prices.

⁵ Griddy customers should not be exempted from paying their bills. They voluntarily entered into those Griddy contracts. When wholesale market prices were low they reaped substantial savings. Furthermore, many are sophisticated, affluent customers that can afford to pay. The only customers that should be exempted from payment are those that can demonstrate severe economic hardship.

THE HB 16 LANGUAGE IS UNAMBIGUOUS

My earlier comments filed in this Project recommended that the Commission interpret the meaning of HB 16 to support limited offerings of Wholesale Indexed Products. Upon reflection, that recommendation is not realistic. HB 16 is clear and unambiguous. The Commission has no authority to override it. Thus, an alternative approach to developing small customer demand response is all the more important.

HB 16 defines a Wholesale Indexed Product as follows:

"wholesale indexed product" means a retail electric product in which the price a customer pays for electricity includes a direct pass-through of real-time settlement point prices determined by the independent organization certified under Section 39.151 for the ERCOT power region.

A close reading of HB 16 reveals that it only prohibits the ***purchase*** of electricity - ***not the sale***. The door is wide open for the Commission to develop small customer demand response that allows all retail customers to sell load reductions to ERCOT through third party "Aggregators" who combine the flexible load offers of retail customers and sell them to ERCOT. To implement this the Commission would need to create a special class of ERCOT market participants for Aggregators.

For guidance, the Commission can look to the ISO-administered economic demand response programs developed under FERC Order 745. These programs allow Aggregators to offer "supply curves" of price responsive demand into the ISO day-ahead and real-time markets where they are treated the same as generation offers and get paid the market clearing prices.

One caveat: FERC Order 745 contains a fatal flaw, which the Commission should avoid. When an ISO pays Aggregators for demand response it must recoup those funds to remain revenue-neutral. FERC Order 745 socializes the revenue recovery, which produces windfall profits for the Load Serving Entities whose retail customers reduce their loads when wholesale market prices exceed the prices in their respective supply contracts (or retail tariffs). As a result, the LSE avoids having to supply the foregone energy at the lower contract (or tariffs) prices, which will be less than the cost of procuring that energy from the wholesale market.⁶

⁶ This controversial issue is debated in depth in *The Electricity Journal*:

Borlick, R., "Paying for Demand-Side Response at the Wholesale Level: The Small Consumers' Perspective," *The Electricity Journal*, December 2011, pp. 8-19.

Because LSEs directly benefit from their retail customers' load reductions, they are the logical parties to reimburse the ISO for payments to Aggregators. The Aggregators will know which retail customers reduced their loads, and also what LSEs served those customers, so they can provide that data to the ISO to facilitate targeted revenue recovery. Provision of that data should be a precondition for an Aggregator to participate in the demand response program.

Billing the Aggregator payments back to the LSEs will leave them with losses caused by their retail customers selling demand response for energy they never paid for.⁷ It is up to the LSEs to put in place mechanisms for recovering those lost revenues from their customers on some fashion; the ISO need not be involved. However, the data that Aggregators provide to the ISO should also be provided to the LSEs.

The Commission can expect the large generators in ERCOT to vigorously oppose demand response facilitated by Aggregators because, as stated earlier, demand response restricts the ability of generators to exercise market power electric and extract excessive rents.

The Commission is authorized to implement rules that improve the economic efficiency of the ERCOT market. Removing barriers to demand response development falls within its purview. The impact this would have on generator offer prices is an indirect, collateral result.

SUMMARY

Residential and small commercial customers providing price responsive demand can effectively provide substantial reserves to ERCOT during hours when supply is scarce, thereby contributing to power system reliability. The most efficient way to bring this about is to expose some of the customers' loads to the ERCOT wholesale market prices. Unfortunately, HB 16 prohibits doing this. One second-best solution is to enable small retail customers to sell their load reductions to ERCOT through third-party Aggregators. The Public Utility Commission of Texas should initiate a rulemaking proceeding to make this solution a reality.

Falk, J. and Rosenzweig, M., "Response from Jonathan Falk and Michael Rosenzweig: Critique Betrays Misperception of Purpose of Demand Response," *The Electricity Journal*, December 2011, pp. 19-24.

Borlick, R., "Robert Borlick Responds: A Simple Issue, Notwithstanding Hundreds of Pages of Testimony and Millions Squandered in Numerous FERC Dockets," *The Electricity Journal*, December 2011, pp. 24-29.

⁷ As described in my comments in Project 52373, the retail customers are not selling energy, they are selling real call options to buy energy at a fixed contract price.

I appreciate the opportunity to provide these comments and look forward to working with the Commission to develop and implement small customer demand response in Texas..

Respectfully submitted,

A handwritten signature in black ink that reads "Robert L. Borlick". The script is cursive and fluid, with the first letters of each word being capitalized and prominent.

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